

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method to facilitate debugging computer code
2 within an operating system kernel, comprising:
3 receiving a source file containing a data structure definition;
4 searching the source file for the data structure definition;
5 upon finding the data structure definition, saving the data structure
6 definition in a storage structure;
7 automatically generating a new source code to display a data structure
8 through execution of a source generator program, wherein the new source code is
9 created using the data structure definition, and wherein automatically generating
10 the new source code includes automatically generating source code to walk a
11 linked list of data structures;
12 compiling the new source code into an executable module;
13 installing the executable module into a modular debugger; and
14 during execution of the modular debugger, displaying a content of the data
15 structure to a user of the modular debugger using the executable module, whereby
16 the user is able to view the content of the data structure.
- 1 2. (Original) The method of claim 1, wherein receiving the source file
2 includes receiving a plurality of source files.

1 3. (Original) The method of claim 1, wherein the source file contains a
2 plurality of data structures.

1 4. (Original) The method of claim 3, wherein saving the data structure
2 definition in the storage structure includes saving the plurality of data structures in
3 the storage structure.

1 5. (Original) The method of claim 3, wherein generating the new source
2 code includes:
3 examining the plurality of data structures in the storage structure to locate
4 a cross-reference between data structures; and
5 generating the new source code for the plurality of data structures.

1 6 (Canceled).

1 7. (Previously presented) The method of claim 1, wherein displaying the
2 content of the data structure includes displaying the content of the linked list of
3 data structures.

1 8. (Original) The method of claim 1, wherein the data structure definition
2 includes one of a tree, a linked list, a doubly linked list, and a queue.

1 9. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method to facilitate debugging computer code within an operating system kernel,
4 the method comprising:
5 receiving a source file containing a data structure definition;
6 searching the source file for the data structure definition;

7 upon finding the data structure definition, saving the data structure
8 definition in a storage structure;
9 automatically generating a new source code to display a data structure
10 through execution of a source generator program, wherein the new source code is
11 created using the data structure definition, and wherein automatically generating
12 the new source code includes automatically generating source code to walk a
13 linked list of data structures;
14 compiling the new source code into an executable module;
15 installing the executable module into a modular debugger; and
16 during execution of the modular debugger, displaying a content of the data
17 structure to a user of the modular debugger using the executable module, whereby
18 the user is able to view the content of the data structure.

1 10. (Original) The computer-readable storage medium of claim 9, wherein
2 receiving the source file includes receiving a plurality of source files.

1 11. (Original) The computer-readable storage medium of claim 9, wherein
2 the source file contains a plurality of data structures.

1 12. (Original) The computer-readable storage medium of claim 11,
2 wherein saving the data structure definition in the storage structure includes
3 saving the plurality of data structures in the storage structure.

1 13. (Original) The computer-readable storage medium of claim 11,
2 wherein generating the new source code includes:
3 examining the plurality of data structures in the storage structure to locate
4 a cross-reference between data structures; and
5 generating the new source code for the plurality of data structures.

1 14 (Canceled).

1 15. (Previously presented) The computer-readable storage medium of
2 claim 9, wherein displaying the content of the data structure includes displaying
3 the content of the linked list of data structures.

1 16. (Original) The computer-readable storage medium of claim 9, wherein
2 the data structure definition includes one of a tree, a linked list, a doubly linked
3 list, and a queue.

1 17. (Currently amended) An apparatus to facilitate debugging computer
2 code within an operating system kernel, comprising:
3 a receiving mechanism that is configured to receive a source file
4 containing a data structure definition;
5 a search mechanism that is configured to search the source file for the data
6 structure definition;
7 a saving mechanism that is configured to save the data structure definition
8 in a storage structure;
9 ~~a generating~~ an automatic code generating mechanism that is configured to
10 automatically generate a new source code to display a data structure through
11 execution of a source generator program, wherein the new source code is created
12 using the data structure definition;
13 wherein the automatic code generating mechanism is further configured to
14 automatically generate source code to walk a linked list of data structures;
15 a compiling mechanism that is configured to compile the new source code
16 into an executable module;
17 an installing mechanism that is configured to install the executable module
18 into a modular debugger; and

19 a displaying mechanism that is configured to display a content of the data
20 structure to a user of the modular debugger using the executable module, whereby
21 the user is able to view the content of the data structure.

1 18. (Original) The apparatus of claim 17, wherein the receiving
2 mechanism is further configured to receive a plurality of source files.

1 19. (Original) The apparatus of claim 17, wherein the search mechanism is
2 further configured to search the source file for a plurality of data structures.

1 20. (Original) The apparatus of claim 19, wherein the saving mechanism is
2 further configured to save the plurality of data structures in the storage structure.

1 21. (Original) The apparatus of claim 19, further comprising:
2 an examining mechanism that is configured to examine the plurality of
3 data structures in the storage structure to locate a cross-reference between data
4 structures; and
5 wherein the generating mechanism is further configured to generate the
6 new source code for the plurality of data structures.

1 22 (Canceled).

1 23. (Previously presented) The apparatus of claim 17, wherein the
2 displaying mechanism is further configured to display the content of the linked list
3 of data structures.

1 24. (Original) The apparatus of claim 17, wherein the data structure
2 definition includes one of a tree, a linked list, a doubly linked list, and a queue.